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Hamilton Harbour:

A heritage and an opportunity

The Report of the Hamilton Harbour Advisory Committee, February, 1982.

Facts on Hamilton Harbour

The Harbour is an enclosed body of water at the western end of Lake Ontario, approximately 8 km. (5 mi.) in the east-west direction and 5 km. (3 mi.) in the north-south direction. Present area is approximately 2,185 hectares (5,400 acres). Present volume is approximately 268 million cu. m. (350 million cu. yds.) The Harbour has a mean depth of 13 m. (43 ft.).

Hamilton Harbour is connected to Lake Ontario by the Burlington Canal which is 730 m. (2,400 ft.) long by 107 m. (350 ft.) wide and 10 m. (33 ft.) deep. The canal was constructed in 1832, prior to which the Harbour was landlocked.

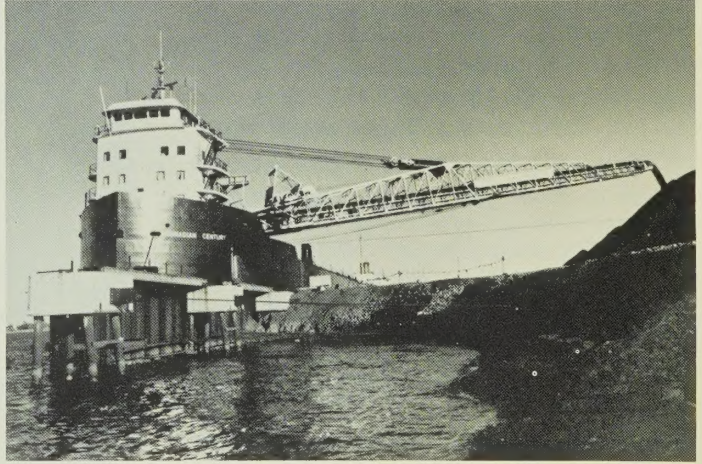
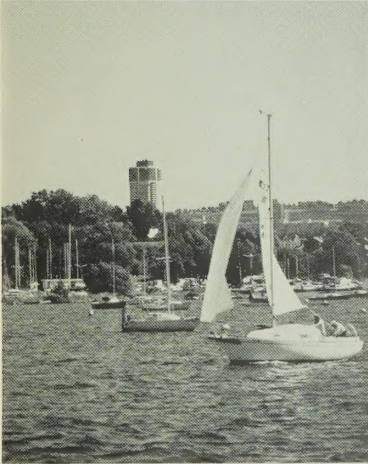
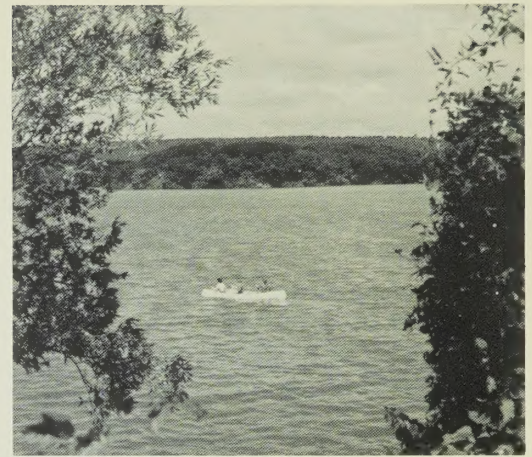
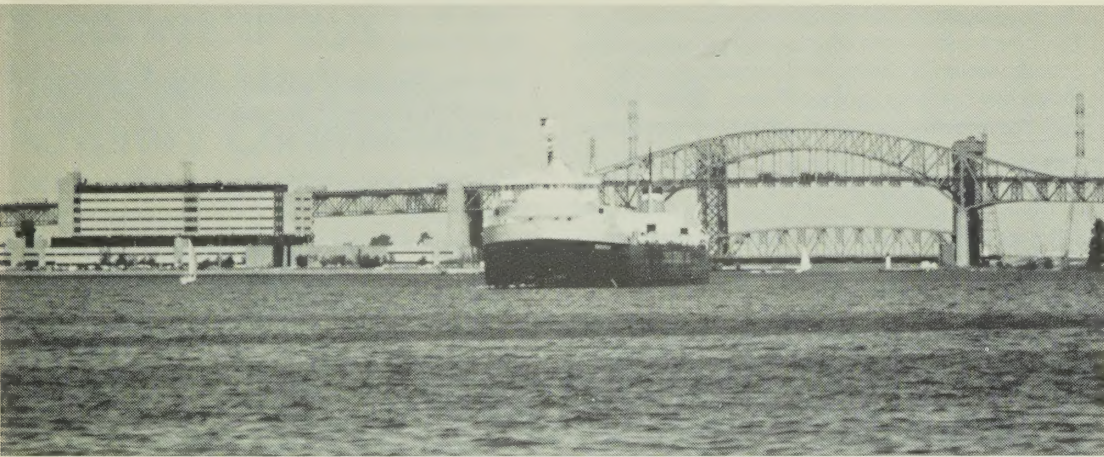
Coote's Paradise, which comprises 160 hectares (400 acres) with a mean depth of .45 meters (1.5 ft.), flows into Hamilton Harbour through a narrow cut underneath the High Level Bridge.

The Harbour receives drainage from a watershed of 500 km.² (190 sq. mi.). The annual discharge from the drainage basin is approximately 126 million cu. m. (165 million cu. yds.) Sewage and waste effluent discharges result in a total annual flow of 447 million cu. m. (585 million cu. yds.) These combined inflows result in Hamilton Harbour water being contained in the Harbour for approximately 6 months. After the 6 month containment period, waters are discharged into Lake Ontario.

Hamilton Harbour receives effluent from Dundas, Burlington and Hamilton sewage treatment plants, from 18 industrial sewer outfalls, and 15 storm sewer outfalls in Hamilton. The inflow of treated wastes is approximately 864 million l. (190 million gallons) per day and the inflow of untreated storm sewer overflows is estimated at 8.64 million l. (1.9 million gallons) per day during overflow periods.

Local industries use approximately 2,213 million l. (500 million gallons) per day of Harbour water as an industrial supply, returning a similar amount of effluent to the Harbour.

Because the Harbour is protected, its shoreline has not experienced the same degree of shore erosion as the Lake Ontario shoreline. Under severe conditions, wave heights may reach 1.8 metres (6 ft.). At LaSalle Park there is a recorded shoreline recession of 12.2 metres (40 ft.) between 1962 and 1980, or an annual erosion rate of .64 meters (2.1 ft.).



A commitment to a more fully balanced use of this community resource that belongs to all of us

Foreword

It is not surprising that the future of Hamilton Harbour has been the focus of so much concern over recent years.

All of us feel a sense of responsibility for the body of water that gave birth to a village, and nourished it into a prosperous community of 500,000 people.

As a result, many studies have been conducted. Many reports have been written.

So you might well wonder what purpose can be served by yet another study and yet another report.

We believe the structure of our Advisory Committee sets this study apart from its predecessors.

The Advisory Committee was initiated at the suggestion of Mayor W. Powell, when he was Chairman of the Hamilton Region Conservation Authority.

He took the very realistic view that the Harbour belongs to all of us — and that all of our varied interests must be considered.

The participants on this Committee most certainly reflect that broad perspective. The views expressed herein are those of the members and not necessarily of the organizations they represent.

At first glance, it might seem that Committee members with a special interest in conservation, transportation, industry, and recreation would share few common points of view. Those interests may seem to move in different directions.

The encouraging fact is that we agreed more often than we differed.

I'm sure all Committee members fondly wish that Hamilton Harbour was still the pristine paradise of a century ago.

However, that nostalgia for the past must be balanced by the direct interest of the 50,000 citizens employed in Bayfront industries — the community at large, and by the economic lifeblood that moves in ocean going ships.

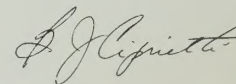
For this reason we're convinced that "balance"

must be the key word as we consider the future of Hamilton Harbour.

We must move toward a more fully balanced use of this magnificent resource in the interest of all our citizens.

Much as some would like, we cannot return to the past.

Our challenge and opportunity is to ensure a better future for Hamilton Harbour through the decisions we make today.



B. J. Ciprietti
Chairman,
Hamilton Harbour Advisory Committee



Footnote:

From the outset of this Report, it is our understanding that the City of Hamilton has final planning jurisdiction over the Harbour, except for shipping and navigation, which is the responsibility of the Hamilton Harbour Commissioners. Accordingly, nothing in this Report should be construed to mean the contrary.

Also, nothing in the Report, or any of its contents, should be used in such a manner as to construe that any of it is binding or may restrict or otherwise prejudice any present or future action, or consideration of the City of Hamilton relating to the Harbour, and that the Report makes no representation directly or indirectly.

Members of the Hamilton Harbour Advisory Committee

The Committee includes representation from various organizations and levels of government that share concern and responsibility for the future of Hamilton Harbour.

**Regional Municipality of Hamilton-Wentworth
and the City of Hamilton:**

A. Georgieff

As Manager of Policy Planning, with the Regional Planning Department, Mr. Georgieff has represented the long-range planning interests and objectives of local government in discussions with his fellow Committee members.

Ontario Ministry of the Environment:

R. Stewart

Mr. Stewart has brought a special area of expertise to the discussions, to help ensure that the Committee's recommendations will be consistent with his Ministry's environmental goals.

The Boating Fraternity:

W. A. Cheek

As Commodore of the Royal Hamilton Yacht Club, Mr. Cheek is well-qualified to speak for those who enjoy Hamilton Harbour as a recreational resource.

Hamilton Chamber of Commerce:

B. J. Ciprietti

Mr. Ciprietti, Manager of Planning at Dofasco, has the background and expertise to reflect the views of the bayfront industries and the business community as a whole.

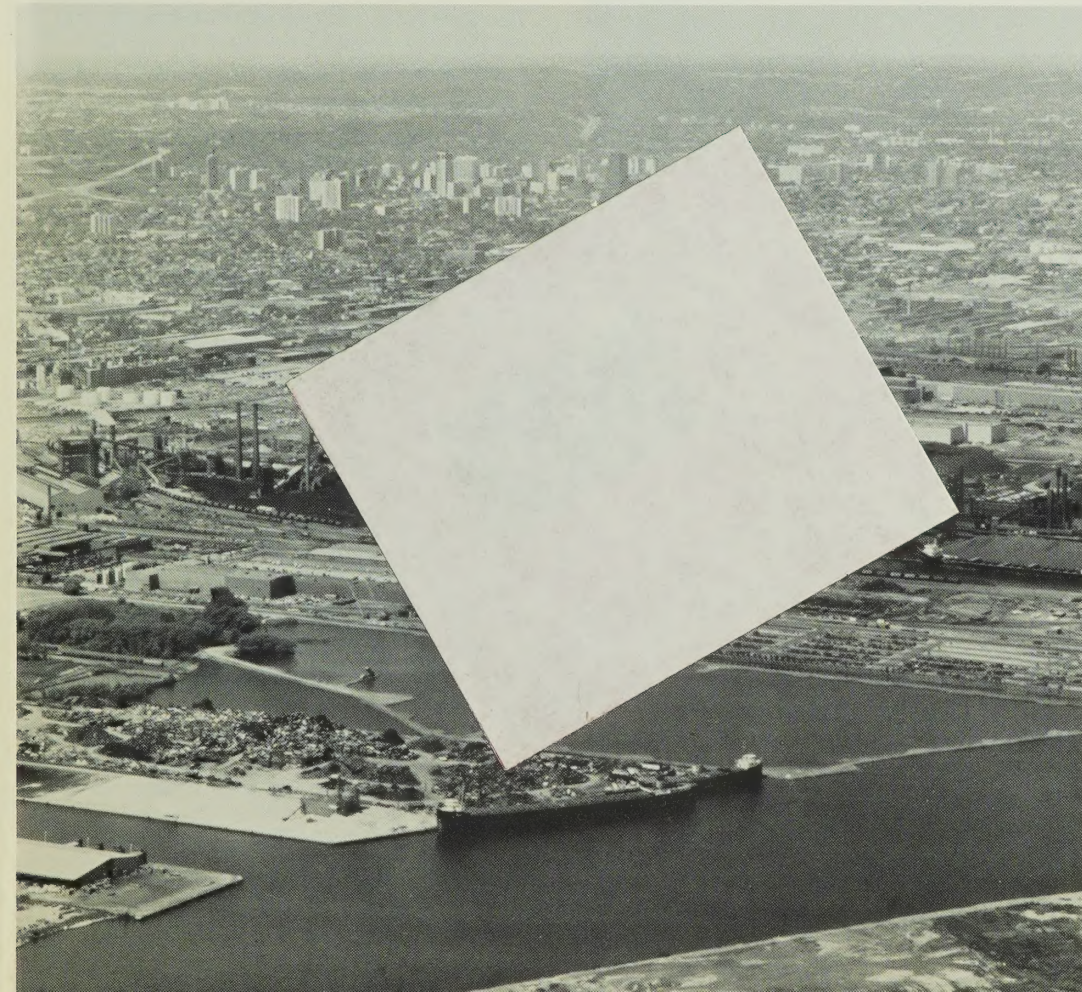
Hamilton Region Conservation Authority:

B. W. Vanderbrug

Mr. Vanderbrug, General Manager of the Hamilton Region Conservation Authority, has expressed the concerns, aims, and priorities the Conservation Authority has set for this important natural resource.

The Hamilton Harbour Commissioners:

While the Commissioners chose not to actively participate in the work of the Committee, it was fully advised of all discussions and we believe this Report reflects its concerns and priorities.



A Heritage and an Opportunity

When Sir Alan MacNab built Dundurn Castle in the 1830's, it commanded a truly magnificent view of an unspoiled paradise.

Dundurn Castle has now been restored to its original splendour.

It's not so easy to turn the clock back for the community as a whole. And few would want to do so.

Inevitably, a century and half of growth has left its mark on the body of water that did so much to make it possible.

Without Hamilton Harbour, this area would not be Canada's foremost industrial centre, with everything that means, in terms of jobs, tax revenues and participation in community development.

Some might say we have paid too high a price for our prosperity. It might be more realistic to admit that we have not always felt enough responsibility and respect for this magnificent heritage.

Few gave a thought to environmental quality during the century's early decades of industrialization. Rapid growth in housing and industry following the Second World War brought a decline in water quality and recreational use of the Harbour.

Almost imperceptibly, what had been a priceless natural resource became an environmental dilemma.

It was only when the sixties brought a new national awareness of the environment, that concern for Hamilton Harbour became a major issue.

However strong and sincere the commitment, it has not proven easy to solve the problems caused by past indifference.

There have been major technological and financial constraints.

The division of authority among several levels of government and other institutions has also had its effect.

Yet we see reasons to be optimistic about the future:

- ☐ Every year, more and more pleasure boats share Hamilton Harbour with ocean going vessels from around the world.
- ☐ Coote's Paradise, in the extreme west end of the Bay, is a carefully preserved haven for migrating waterfowl and a mecca for naturalists.
- ☐ Further expansion of industry on the south shore will be confined within existing headlands.
- ☐ There is no doubt that attitudes have changed. Growth at any price is no longer an acceptable view — if indeed it ever was. We believe there is now a commitment to a more responsive balance amongst public use, commerce, shipping and navigation and the environment.

Achieving the optimum balance will require a spirit of compromise and a joint commitment from all institutions, and all levels of government that share responsibility for the future of Hamilton Harbour.

Seven Issues and Recommendations:

Agreement on a total concept for the future of the Harbour is vital, if specific decisions are to be consistent and compatible with an overall plan.

The concept of a balanced multi-purpose use of the Harbour provided the rationale for the Committee's discussion and recommendations on seven key issues.

Some of these issues relate to specific areas of the Harbour while others have a broader context.

The key issues are:

1. Water Quality
2. Public Access
3. West Harbour Area
4. Marina Expansion
5. Windermere Basin
6. Southeastern Fill Area
7. Skyway Bridge

Previous Studies of Hamilton Harbour

Background information and recommendations on these seven key issues form the substance of this Report.

As its name suggests, the Hamilton Harbour Advisory Committee is not empowered to take action on these recommendations.

Its purpose was to consider areas of concern, and specific actions that will have a major and positive impact on future use of the Harbour.

We believe the recommendations in this Report have special validity because they were developed by a Committee representing the interests of three levels of government, as well as conservation, recreation and industry.

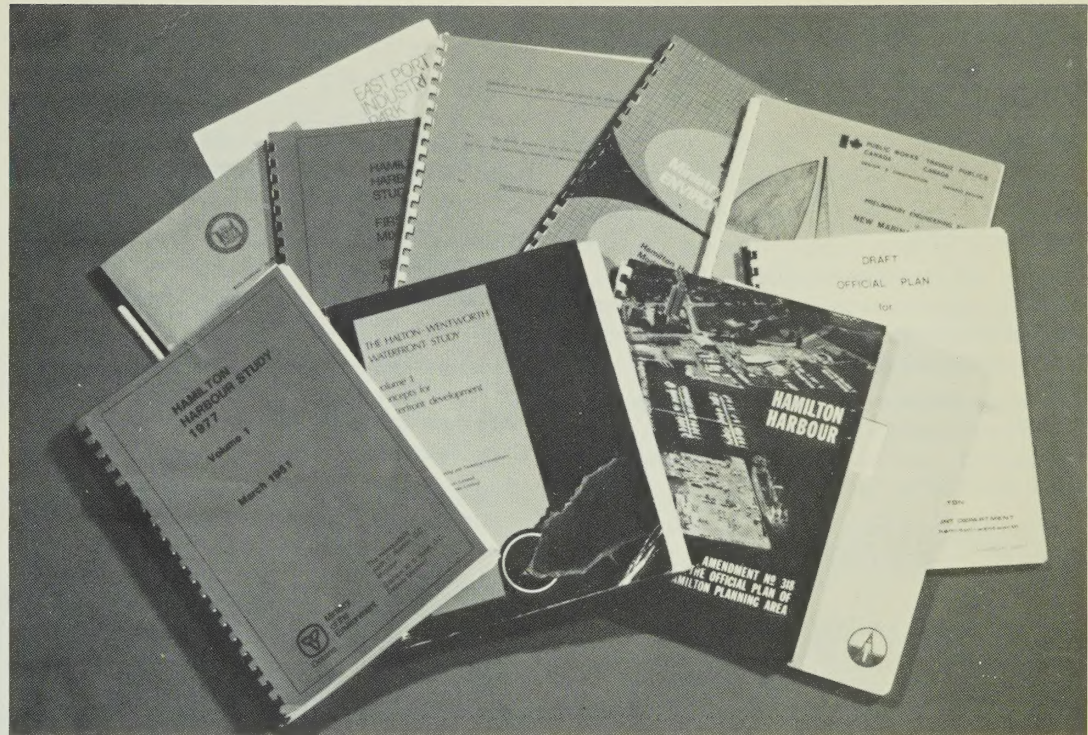
The significant fact is that Committee members were in general agreement on all but one of the seven issues. And as will be discussed later, even in that case the disagreement tended to be one of emphasis rather than broad intention.

There's no doubt in our minds that the coming together of a wide range of interests and priorities marks a giant forward step.

We hope this Report will bring the day closer when the entire community will join together to intelligently manage this irreplaceable, natural resource.

Few issues have been more thoroughly studied and re-studied than the future of Hamilton Harbour.

Previous studies have considered such aspects as water quality, recreation, land use, harbour filling and port expansion.



These studies represent a great deal of very useful work, and it has certainly not been our Committee's intention to re-invent the wheel. As you might expect, we have carefully evaluated the findings of previous studies including the following —

- 1974 Halton-Wentworth Waterfront Study, Prepared By Acres Consultants, Ltd.
- 1978 The Hamilton Harbour Commissioner's Port Master Plan
- 1979 The Harbour Area Plan, Official Plan Amendment 318, City of Hamilton
- 1980 Official Plan, City of Hamilton

It would be quite reasonable to ask why we feel this present Report can make a new significant contribution.

Our Committee, with its broad representation, has used the information from previous reports generated by specific interest groups, and developed positions concerning seven key areas where there has been concern in the past.

It is hoped that our Report and recommendations will form the new basis for consolidated information and coordinated efforts for the future.

Water Quality

ISSUE #1

Background:

The Indian name "Macassa", for the Harbour can bring a twinge of nostalgia. Macassa means "sparkling water".

You can still see the sun sparkle on Hamilton Harbour as you cross the High Level or Skyway Bridges. Though the view is beautiful, the reality is something else again.

Few fish would venture in water where game fish once thrived. Even sludge worms that can tolerate high pollution levels cannot survive in some areas of the Harbour.

The by-law which prohibits swimming is scarcely necessary because there is so little temptation to do so.

Dramatic growth has been part of the problem responsible for the condition of the Harbour. However, through co-operation with the Ontario Ministry of the Environment, the southshore industries have made a concerted effort to improve conditions. They have spent about \$100 million in the last fifteen years to treat the tremendous volume of process wastes before discharge to the Harbour. Their efforts and programmes are continuing to make further improvements. Similarly, in the past few years the municipal sewage treatment plants have also been upgraded. Waterdown and Dundas now have treatment beyond the normal secondary level in order to protect Coote's Paradise and Grindstone Creek. Continuing improvements are also taking place at the Hamilton Sewage Plant.

Despite such efforts, water quality in Hamilton Harbour is still unsatisfactory. There are several reasons why results have been disappointing.

Over the decades, the surface area of the Harbour has been substantially reduced by landfilling. This in turn has reduced its "self-cleaning" ability.

Moreover, through decades of overloading, the bottom sediment is contaminated with heavy metals, bacteria and other pollutants that continue to impair water quality.

Other pollutants encourage uncontrolled growth of algae. This in turn robs the water of oxygen that is so vital to life and to the natural purification process.

At the same time, the Harbour receives large volumes of discharges from sewage treatment plants serving the Hamilton-Wentworth Region and Burlington, in addition to very large quantities of treated process water from waterfront industry.

Untreated discharges from storm sewers and sewage overflows aggravate an already serious problem.

Furthermore, the Harbour receives impurities and pollutants from several small water courses including Red Hill, Spencer, Grindstone, Chedoke and Hager-Rambo Creeks.

For these and other reasons, the task of cleaning up the Harbour is a tremendously difficult challenge.

In the view of this Committee, improved water quality is absolutely vital to the more balanced use of this community resource. Recreational use will only reach its full potential as water quality is significantly improved.

Recommendations:

1. There should be an accelerated effort by all levels of government and industry to reduce pollutant levels in water entering the Harbour from all Municipal and Industrial sources — including emissions into creeks that drain into the Harbour.
2. The Ontario Ministry of the Environment should continue to monitor progress in the improvement of water quality and publicize the results. The MOE should be encouraged to develop standards for water quality in the Harbour and to set policies to achieve these standards.
3. The MOE should be requested to identify source contaminants — i.e., the relative amounts of pollution from various sources (creeks, storm sewers, water run-off, industrial wastes, municipal sewage treatment plants, etc.).

Limited Public Access

ISSUE #2

Background:

Public access to Hamilton Harbour is obviously a key factor in achieving a more fully balanced use.

Although the boating fraternity enjoys access to the entire surface of the Bay, there is less reason for optimism when the allocation of shoreline frontage is considered.

Some 46% of the 45 km. Harbour waterfront is now allocated to industry. Transportation, institutional and uncommitted represent 36% of the total, and residential accounts for another 11%.

So only 7% of the total is available for recreational use — and less than half of that is occupied by private and public marinas.

Those percentages do not include Coote's Paradise, the natural recreation area at the extreme western end of the Bay. Its 16 km. wooded shoreline offers very special recreation opportunities consistent with its role as a nature preserve.

However, it must be acknowledged, that public access to the Harbour itself is extremely limited and should be expanded if we are to achieve the goal of total community utilization of the Bay.

There seems to be no practical way to introduce small recreational pockets within the industrial complex along the southeastern shoreline. Any such artificial solution would compromise the efficiency of industry without offering any significant recreational benefit. However, if re-development proposals occur, they should be reviewed for their potential to provide public access to the Harbour.

Present opportunities for increased public access do exist, and these are located in the western end of the Bay.

Recommendations:

1. Public access lands should be identified by Public agencies and purchased for waterfront-related recreation.
2. Every possible opportunity should be taken to provide more public access to the Harbour.



West Harbour Area

ISSUE #3

The future of this waterfront property, west of the Royal Hamilton Yacht Club, has been the focus of considerable discussion.

The property was originally a 24 hectare (60 acre) waterlot of which 10 hectares (26 acres) have been reclaimed through landfilling.

This is one of the very few shoreline areas accessible to the public which could be developed for recreation related activities in order to realize a balanced use of Hamilton Harbour.

The 1974 Halton-Wentworth Waterfront Study therefore stressed that the property should be designated for public recreation.

The City's new Official Plan, which is currently before the Province for approval, also urges that these lands be utilized for Open Space purposes, with additional waterfront uses permitted to enhance public attraction to the site.

Recommendation:

The City of Hamilton's new Official Plan designation of Open Space for waterfront related uses should be actively supported.



Marina Expansion

ISSUE #4

There's no doubt that boating is one of the fastest growing recreational activities. It's equally certain that many more people would enjoy sailing if additional boat slips were available.

The lakeshore itself offers very few opportunities for expansion of marina facilities. There is only a limited number of locations where boats can be sheltered from the violent wave action encountered during storms.

As an almost completely land-locked body of water, Hamilton Harbour offers the ideal solution to the shortage of boat slips.

Moreover, expansion of public marina facilities would contribute to the goal of increased recreational use of Hamilton Harbour.

Although shoreline frontage available for public use is severely limited, the western end of the Bay and the north shore offer several opportunities for the balanced mix of facilities required by recreational sailing.

The Halton-Wentworth Waterfront Study recognized this opportunity and recommended that the number of boat docking facilities be increased to 1900.



The existing docking facilities total 883, broken down as follows:

Dry Slips	126
Wet Slips	516
Moorings	<u>241</u>
Total	883

While this Committee supports the spirit of that recommendation, we believe that such a dramatic increase would put a strain on the Harbour to the detriment of the boating public — and perhaps of commercial shipping as well.

Recommendations:

1. Expansion of marina facilities should be strongly encouraged — but on a more moderate basis than the almost fourfold increase in boat slips recommended by the Halton-Wentworth Shoreline Study.
2. Limited marina expansion including shore facilities and road access should take place preferably at the western end of the Hamilton Harbour.

Windermere Basin

ISSUE #5

Windermere Basin is the most polluted area of the Harbour.

This may come as no surprise given that the Basin receives discharges from the Hamilton Sewage Treatment Plant, sanitary sewer overflows and storm sewers. Redhill Creek also empties into the Basin.

Pollutants have an opportunity to settle in the Basin or be partially broken down before the water enters the main body of Hamilton Harbour.

As a result, the Basin helps to protect the Harbour, and ultimately Lake Ontario, from contaminants.

But over the decades, the depth of Windermere Basin has been significantly reduced by sediment. There are often exposed mudflats that are aesthetically displeasing.

Several alternatives for future development of Windermere Basin could be considered.

At one extreme, the entire Basin could be filled and reclaimed land allocated to industry or recreation.

At the other extreme, it could be dredged and restored to its original effectiveness as a sediment trap and treatment basin.

Or, certain areas could be dredged and others filled as appropriate.

The first alternative cannot be recommended. Filling the entire Basin would significantly decrease the surface area of Hamilton Harbour to the detriment of water quality.

Discharges would enter the Harbour proper without the pre-treatment that the Basin was designed to provide.

While dredging all or part of the Basin is the most logical solution, it presents another problem. Tests have shown that the bottom sediment is contaminated by the pollutants that have settled out in the Basin before water enters the Harbour itself.

Disposal of these contaminated dredge spoils could be an environmental problem. This aspect of the problem must be thoroughly studied before a final decision can be made.

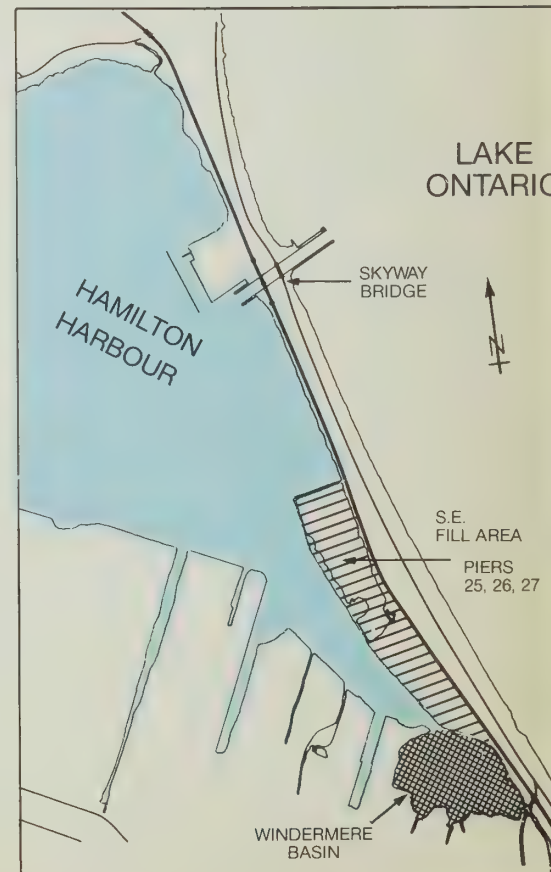
Thus far, no funds have been allocated for the dredging of Windermere Basin. An appropriate solution will therefore require the concerted effort of the three levels of government as well as the Hamilton Harbour Commissioners, industry, and others who share responsibility for the future of the Basin and the Harbour itself.

Of course, the long-term solution is to reduce the level of pollutants in the water entering the Basin. The Ontario Ministry of the Environment is conducting a study to determine the magnitude of contaminants from various sources. The study will permit a critical review of the pollution abatement strategies that are so vital to the improvement of water quality.

Recommendations:

The Committee endorses the City's Official Plan Policy that a decision regarding the land use disposition of the Windermere Basin be deferred until —

1. The environmental implications of disposing of the polluted dredged spoils have been studied.
2. The study being conducted by the Ministry of the Environment of pollutant sources has been completed — probably late in 1981.
3. All parties having an interest in the Basin and the Harbour itself have held joint discussions of the study findings.



Southeast Fill Area (Piers 25, 26 and 27)

ISSUE #6

There is a continuing need to dredge the Harbour to maintain appropriate depth for ocean going ships. This is vital to the role of Hamilton Harbour as one of the busiest ports of the St. Lawrence Seaway.

For this reason, a 50 hectare (125 acre) containment area was developed, on the harbour side of the Beach Strip, in 1966 for the disposal of dredged materials. About 30 hectares (80 acres) have now been filled, and it is anticipated that the remaining 18 hectares (45 acres) will function as a disposal site for an additional 10 to 15 years.

This site, once filled, is one of the few remaining uncommitted properties along the Harbour waterfront. As such, it represents a major opportunity for the future of the Harbour. The Advisory Committee believes very strongly that the goal of balanced use of the Harbour should influence that decision.

However, this was the one area of discussion in which the Committee did not share a unanimous view. The majority opinion is that a major portion of the 50 hectare (125 acre) area must provide for future improvement and expansion of port facilities which would include docks, warehousing, and marina related prestige industries.

Updating facilities and expansion is essential, otherwise our future as a major seaway port could be in peril.

Even though it is intended to use this site for port expansion purposes, it also represents a shift of port facilities from the west to the east portion of Hamilton Harbour. In this connection, the Hamilton Harbour Commissioners intend to release lands, notably Centennial Pier, for open space and recreational purposes in the western part of the Harbour as Piers 25, 26 and 27 are developed for port related facilities.

The Committee recognizes the opportunity that the area offers for the melding of port-related uses and public access to the harbourfront. This balance of shipping and safe public access is not only compatible, but highly desirable. Walkways and vantage points for viewing the port and shipping activities are means of facilitating this accessibility. As well, such attractions as marina museum and industrial interpretive centre, among others, could compliment the public access opportunities. Toronto gives us an example of how effectively the two functions can be blended.

The minority view did not object to the balanced use of the site as expressed above. However, serious concern was voiced over the relative proportions of the various developments. If industrial users were to take over, the opportunities for public access would be lost. This view also expressed that an industrial emphasis for the site would be incompatible with the proposed recreational use of the Beach Strip. Moreover, it was felt that existing planning documents do not truly represent the balanced uses the Committee is advocating. These documents make reference to recreation and related uses, but a much stronger expression of this objective would be required if the balanced use is to become a reality.

Recommendations:

1. The majority recognizes the intended shipping and navigational use of the site by the Hamilton Harbour Commissioners. As well, the use of public promenades and lookouts are encouraged in the development of the area. Design measures such as landscape berms and treed boulevards are necessary to enhance the visual amenity of the area as well as to screen the site from the lakeside of the Beach Strip.
2. That a commitment be obtained from the Hamilton Harbour Commissioners to release, for recreational purposes, existing port facilities as Piers 25, 26 and 27 are developed.

Skyway Bridge

ISSUE #7

The Skyway Bridge, constructed in 1958, is no longer adequate for the ever-increasing volume of Queen Elizabeth Highway traffic that must cross the canal connecting Hamilton Harbour with Lake Ontario.

Expansion of this traffic artery is therefore vital to the future of the Region and of Southern Ontario as a whole.

The Ontario Ministry of Transport and Communications has considered several alternative approaches.

One concept called for a tunnel under the canal, which would obviate the problems caused by high winds and other adverse weather conditions.

However, the Tunnel proposal has been regarded as too costly.

An alternative proposal is to twin the present Skyway Bridge. The new bridge, as it is proposed, will be situated on the harbour side. Also, the twinning concept will necessitate the least amount of landfill between the two alternatives.

Recommendation:

In the process of twinning the Skyway Bridge, the Ministry of Transportation and Communications should be urged to minimize or eliminate the landfilling of the Harbour shoreline.



Future Steps

This Report of the Hamilton Harbour Advisory Committee has discussed seven key issues and put forward a series of recommendations.

We believe the recommendations have special validity because they represent the diverse interests of the Committee members.

But however valid the recommendations may be, the Report will only be effective if it is strongly supported by all those who share responsibility for the future of Hamilton Harbour.

Many of the past frustrations in making effective decisions have resulted from divided authority. The Committee strongly believes that there must be coordination amongst those agencies that have primary responsibility for the Harbour.

Overall Harbour land use control rests with the City of Hamilton, while the Hamilton Harbour Commissioners are responsible for shipping and navigation.

The City's new Official Plan must therefore be regarded as the all-important Harbour planning document. This Plan is presently before the Provincial Government for approval.

Many of the issues discussed in the Report have been effectively dealt with in the new Official Plan. The resolve of these issues can only be achieved when specific site development proposals are made. Approving agencies are thus urged to review these proposals in light of the recommendations established in this document.

The City of Hamilton has formalized the continued use of this advisory panel. In this regard this panel will undertake to develop a public beautification programme to enhance the visual aspect of the Harbour.

It is hoped that those reading this Report will want to help ensure that this priceless heritage will be a source of pride for all of us — and for future generations.

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